REMARKS

The April 5, 2006 Office Action regarding the above-identified application has been carefully considered; and amendments above together with the remarks that follow are presented in a bona fide effort to respond thereto and address all issues raised in that Action.

The independent claims have been amended to emphasize that the printer controls printing based on the copy control information, to more clearly distinguish over applied art. Support for this operation should be apparent in the original disclosure, for example, including lines 8-17 of page 15 of the original specification.

New dependent claims 21 and 22 are presented above to specifically point out that the static image information is image information extracted from video information. Support should be apparent in the original disclosure. For example, lines 17-18 of page 7 of the original specification state that the information may be "video/audio or the like;" and the background places the subject matter in the context of digital broadcastings for television services (page 1, lines 6-10).

For reasons discussed below, it is believed that this case is in condition for allowance. Prompt favorable reconsideration of this amended application is requested.

The Office Action set forth a rejection of claims 1, 2, 4-6, 8, 10 and 12-14 under 35 U.S.C. §102(e) as anticipated by U.S. Application Publication No. 2002/0141737 to Fuchigami. Claims 3 and 7 were rejected under 35 U.S.C. §103 as unpatentable over Fuchigami in combination with U.S. Application Publication No. 2002/0056115 to Yoneda et al. (hereinafter Yoneda). The Office Action also set forth a rejection of claims 11 and 15-20 under 35 U.S.C. §103 as unpatentable over Fuchigami in view of European Publication No. 1085740 to Korl et al. (hereinafter Korl) These rejections are traversed.

Written Statement of Substance of Interview

A telephone interview was conducted between Examiner Charlie Agwunezie and Keith George on June 30, 2006, and the Examiner's cooperation in conducting that interview is appreciated.

Applicants' representative pointed out that the Fuchigami publication discloses a device with an output interface (50A) to a printer (not shown), in which the interface 50A may respond to the presence of a "copy prohibited" signal in a still-picture signal directed to the printer by prohibiting the transmission of the still-picture signal to the printer. In the absence of a "copy prohibited" signal from a still-picture signal directed to the printer, the still-picture interface circuit 50A permits and executes the transmission of the still-picture signal to the printer. This disclosure, for example, may be found in the description in paragraph 0117 in the Fuchigami publication. It was also asserted that the techniques disclosed herein relied on output of the copy control information together with the static image information to enable control of printing in the printer.

The prior recitation of the output circuit in claim 1 (lines 7-9) was discussed, and addition of a recitation that the printer receives the digital information and the copy control information which has been output by the output circuit, was proposed in order to further emphasize that the output facilitated control in the printer based on the copy control information as distinctions of claim 1 over Fuchigami on the point. It was also suggested that claim 5 related to the printer per se and it might be amended in some fashion to emphasize the control feature implemented in the printer.

Applicants' representative also asserted that the Fuchigami disclosure of enabling/disabling output to the printer based on absence/presence of the "copy prohibited"

signal contained in a still-picture signal would not satisfy the requirements that the printing of said digital information is controlled based upon said copy control information, in such a manner that:

(1) the printing of said digital information is allowed when said copy control information would permit making a copy of said digital information;

(2) the printing of said digital information is allowed when said digital information has been obtained by permissible copying but copy control information would permit no further copying of said digital information; and

(3) the printing of said digital information is disabled when said copy control information completely inhibits the copying of said digital information.

The Examiner acknowledged understanding the various points. However, the Examiner responded to the various assertions of distinctions over Fuchigami by asserting that the Fuchigami disclosure was sufficient to meet the requirements or that the specific claim features at most would have been obvious. No agreement was reached.

Applicants' positions on novelty and patentability over the art are discussed in more detail below.

Detailed Traversal of the Art Rejections

Applicants respectfully submit that a distinctive feature disclosed in the present application is that printing of the digital static image information (i.e., the digital information in the claims) is controlled by a printer, based on the copy control information added to the digital information before output thereof from the receiver or recording/reproducing device that supplies the extracted digital static image information to the printer. In the disclosed examples, it is **not** a receiving apparatus or a recording/reproducing device that controls printing based on copy control information. The printer controls the printing based on the copy control information.

On the other hand, in Fuchigami, the interface circuit 50A controls the condition of printing, i.e., making the printing allowable/disable based on the presence or absence of the "copy prohibited" signal in the still picture signal. Fuchigami discloses the interface 50A as an element of the recording and reproducing apparatus. In paragraph [0117], Fuchigami teaches that the interface circuit 50A prohibits the output to the printer when "copy prohibited" data is contained in the still picture signal, and the interface circuit 50A permits the output to the printer when "copy prohibited" data is absent from the still picture signal. Hence, deciding on whether printing is allowed or not (i.e., enabled or inhibited) is made by the interface circuit 50A in the Fuchigami recording and reproducing apparatus. When the printing is inhibited, there is no output to the printer, either of the still picture signal or of the copy control information. Control is not at the printer.

To varying degrees, Applicants' independent claims recite limitations relating to printer control and distinguishing over the enable/disable function in the recording and reproducing apparatus as disclosed by Fuchigami. For example, lines 7-9 of claim 1 recite:

> an output circuit for outputting the static image information reproduced from said recording/reproducing circuit to the printer, with copy control information added thereto, as information for control of printing of said printer, wherein... (emphasis added)

Claim 1 has been amended above to more specifically recite:

> printing of said digital information is controlled based upon said copy control information, by the printer receiving the digital information and the copy control information, which are outputted by said output circuit, in such manner that:

Hence, claim 1 clearly requires that the copy control information is added to the digital information, and the combination of digital information and copy control information is output to the printer, so that the printing thereof is controlled by the printer itself based on the copy control

information. Fuchigami discloses only that the interface circuit 50A within the recording and reproducing apparatus controls the condition of printing, but not control in the printer itself. Applicants therefore submit that Fuchigami does not meet the above-quoted requirements of claim 1.

Claim 5 relates to a printer, per se. The elements of the printer include:

> an input circuit for receiving an input of said digital information and associated copy control information from the recording/reproducing apparatus;
>
> a printer circuit for printing the input digital information; and
>
> a control circuit for detecting the copy control information received with said digital information, for controlling the printing of the input digital information in said printer circuit depending upon the detected copy control information, wherein:

In the above quotation, additions made by amendment above are underlined (deletions are omitted). In its amended form, the claim expressly requires that the function of the input circuit is to receive an input from a recording/reproducing apparatus and that the input includes both digital information and associated copy control information. The claim further requires that the control circuit detects the received copy control information to control printing in the printer circuit. Fuchigami discloses several embodiments of a recording and reproducing apparatus (e.g. FIGS. 13, 14 and 17; and paragraphs 0059, 0060 and 0063), each of which includes an interface 50A for selectively supplying still picture information to a printer. However, the printer per se is omitted from the drawings, and Fuchigami fails to disclose any specific structure, elements or arrangement of a printer. Such a disclosure actually is unnecessary for Fuchigami's purposes, because Fuchigami implements the relevant control function in the recording and reproducing apparatus, not in the printer itself. As noted above, Fuchigami uses the interface 50A in the recording and reproducing apparatus to enable/disable output of the still picture signal to the

printer based on the absence/presence of the "copy prohibited" data in the still picture signal. Hence, Fuchigami does not disclose a printer that includes an input circuit for receiving an input of digital information and associated copy control information from a recording/reproducing apparatus; a printer circuit for printing the input digital information; and a control circuit for detecting the copy control information received with the digital information to control the printing of the input digital information in the printer circuit based upon the detected copy control information, as expressly recited in claim 5. There is simply no disclosure of such a printer, per se, in Fuchigami.

The other independent claim, claim 8, relates to a printing control method, for controlling printing of digital information in a printer. The claimed method includes steps of:

> receiving an input of digital information and associated copy control information, at the printer, from a recording/reproducing apparatus;
>
> detecting the copy control information, associated with said digital information, wherein said copy control information is applicable, in common, both as information for copy control in a recording/reproducing circuit and as information for printing control; and
>
> controlling whether or not to permit the printer to print said digital information depending upon the detected copy control information wherein printing of said digital information is controlled based upon said copy control information in such a manner that:

In the above quotation, additions made by amendment above are underlined (deletions are omitted). In its amended form, the claim expressly requires that the input of the digital information and associated copy control information is received at the printer from a recording/reproducing apparatus. Control of whether or not to permit the printer to print the digital information depends on the detected copy control information, that is to say the copy control information that was received at the printer in association with the digital information that is to be printed.

It is respectfully submitted that the enabling and disabling of output at the output interface of the recording and reproducing device in Fuchigama does not provide the above quoted steps of claim 8. Since the enabling/disabling function is in the recording and reproducing device, there is no reception of an input of digital information and associated copy control information, at the printer, from a recording/reproducing apparatus, in combination with detecting of that copy control information and controlling whether or not to permit the printer to print the received digital information based upon the copy control information that was received at the printer, as expressly required by claim 8.

In addition to the printer control distinction discussed in detail above, each of the independent claims also recites the specific control function that is dependent upon the copy control information output to or received in the printer. As noted above, the control is performed in the printer. Specifically, each of the independent claims requires that the control function enabled by the information output (claim 1) or performed at the printer itself (claim 5) or responsive to information received in the printer (claim 8) allows printing of the digital information: (1) when the copy control information received at the printer would permit making a copy of digital information, e.g. when the copy control information indicates 'copy free' or 'copy one generation,' and (2) when the digital information has been obtained by permissible copying but the copy control information received at the printer would permit no further copying of the digital information, e.g. when the digital information obtained by permissible copying is thereafter designated for 'no more copies' permitted. However, the control functionality also can disable printing of the digital information when the copy control information completely inhibits the copying of the digital information, e.g. when the copy control information indicates 'copy

never.' It is respectfully submitted that Fuchigami does not in fact disclose the specifically recited form or control, particularly as may be implemented in the printer itself.

Fuchigami suggests that the source material may have three levels of copy control. In that regard, paragraph 0070 reads as follows:

> [0070] According to CPRM, the AOBs 13 are encrypted, and copying the AOBs 13 are controlled among three levels, that is, "copy free", "copy permitted only for a first generation", and "copy prohibited".

However, Fuchigami does not teach propagating all three levels through the recording reproducing apparatus. The very next paragraph (0071) only teaches recording one level of control information. The paragraph includes the express statement that "During the copying of the audio data from the digital recording medium onto the DVD-AR disc, a signal representative of 'copy prohibited' is written in copy control information to prevent the production of a second-generation copy." In the Fuchigami embodiments that provide still picture output, the recording and reproducing apparatus only looks for the "copy prohibited" signal and enables/disables output of the still picture based on the absence/presence of that one level of copy control information. For example, paragraph 0117 reads as follows:

> [0117] The still-picture decoder 49 outputs the digital still-picture signal to a still-picture interface circuit 50A. The still-picture interface circuit 50A converts the format of the output signal of the still-picture decoder 49 into a format suited for transmission to a printer (not shown), for example, a format conforming to the USB standards. The still-picture interface circuit 50A is connected with the printer on a wireless or wired basis. A signal representative of "copy prohibited" may be contained in a still-picture signal directed to the printer. The still-picture interface circuit 50A may execute the addition of a "copy prohibited" signal into a still-picture signal directed to the printer. The still-picture interface 50A may respond to the "copy prohibited" signal as follows. In the presence of a "copy prohibited" signal in a still-picture signal directed to the printer, the still-picture interface circuit 50A prohibits the transmission of the still-picture signal to the printer. In the absence of a "copy prohibited" signal from a still-picture signal directed to the printer, the still-picture interface circuit 50A permits and executes the transmission of the still-picture signal to the printer.

It is respectfully submitted that the actual teaching of Fuchigami, to enable/disable output based on the absence/presence of possibly added "copy prohibited" data in still picture information, would not fairly suggest a control strategy in which (1) the printing of the digital information is allowed when the copy control information would permit making a copy of the digital information; (2) the printing of the digital information is allowed when the digital information has been obtained by permissible copying but copy control information would permit no further copying of the digital information; and (3) the printing of the digital information is disabled when the copy control information completely inhibits the copying of the digital information, as expressly recited in each independent claim. Using the absence/presence of "copy prohibited" in still picture information might arguable allow output to the printer when the copy control information would permit making a copy of the digital information (absence of "copy prohibited") and disable such output when the copy control information completely inhibits the copying of the digital information (presence of "copy prohibited"). However, even under such an interpretation, there would still not be a situation in which the printing of the digital information is allowed when the digital information has been obtained by permissible copying but copy control information would permit no further copying of the digital information. In Fuchigami, when copy control information completely inhibits the copying of the digital information (presence of "copy prohibited") output of the still picture is inhibited, and there is no way to still enable printing of the digital information in the event that the digital information was obtained by permissible copying. Fuchigami's control of output to the printer simply does not satisfy the requirements for the combination of all three control options at the printer, as required by the last three paragraphs of each independent claim.

In view of the distinctions discussed in detail above, it should be clear that the actual disclosure of Fuchigami does not satisfy all of the express recitations of any of the independent claims (1, 5 and 8). Hence, Fuchigami does not anticipate any of those claims or any of the claims that depend therefrom, and the anticipation rejection of claims 1, 2, 4-6, 8, 10 and 12-14 over Fuchigami should be withdrawn.

The secondary teachings of Yoneda and/or Korl as alleged in the obviousness rejections would not lead to a modification of Fuchigami that would satisfy the independent claim requirements discussed above. The rejection of claims 3 and 7 cited Yoneda only for teachings related to scrambling and descrambling. The Yoneda publication fails to show the distinctive features of the present claims, as discussed above relative to the independent claims. For example, addition of scrambling/descrambling (Yoneda) to Fuchigami would not result in control in the printer based on the output of the digital information and associated copy control information or such control that allows printing when digital information has been obtained by permissible copying but copy control information would permit no further copying of the digital information. The rejection of claims 11 and 15-20 cited Korl for other features unrelated to the distinctions noted above. Hence, the combination of Fuchigami and Korl likewise would fail to satisfy the requirements of the independent claims. Applicants therefore submit that neither combination meets the claim requirements, and neither combination renders any claim obvious in the legal sense of 35 U.S.C. § 103 unpatentable over the art. Claims 3 and 7 as well as claims 11 and 15-20 should be patentable, and the rejections thereof should be withdrawn.

New claims 21 and 22 specifically recite extraction of the static image information from video. Fuchigami, for example, extracts still picture information from electronic music distribution (EMD) added data (see e.g. paragraph 0108). Apparently, the still picture data is in a

separate elementary data stream rather than a selected/extracted part of a video (see e.g. claim 14 of Fuchigami). Claim 21 depends from independent claim 1 (via intervening claim 4); and claim 22 depends from independent claim 8. Hence, new claims 21 and 22 should be novel and patentable over the art along with the respective independent claims.

Conclusions

Upon entry of the above claim amendments, claims 1-5, 7, 8 and 10-22 are active in this application, all of which should be novel and patentable over the art applied in the Action. Applicants therefore submit that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicants respectfully request a prompt favorable reconsideration of this matter.

It is believed that this response addresses all issues raised in the April 5, 2006 Office Action. However, if any further issue should arise that may be addressed in an interview or by an Examiner's amendment, it is requested that the Examiner telephone Applicants' representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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